S/M No : DDC4000001

Service Manual

Digital Camera

Model : DDC400

Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information,please refer to PPL(Parts Price List) in Service Information Center.

DAEWOO ELECTRONICS

NOV. 2005

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2. Warning

If you are using AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.

Do not touch the power plug during a thunderstorm if you are using the AC power adapter. This may cause an electrical shock.

Do not insert or drop metallic or inflammable foreign objects into the camera through access points such as the memory card slot. This may cause a fire or an electrical shock.

If the camera has been dropped or if the camera case has been damaged, turn the camera off and then disconnected the power source (batteries or AC power adapter). Do not continue to use the camera as this may cause a fire or an electrical shock.

Do not cover or wrap the camera or the AC power adapter with a cloth. This may cause heat to build up and distort the case and cause a fire. Always use the camera and its accessories in well-ventilated locations

Do not use batteries other than those specified for use with your camera. The use of unsuitable batteries may result in the batteries splitting or leaking and causing a fire, injury, or soiling of the battery compartment. If the batteries leak, clean and wipe the battery compartment carefully and install new batteries.

3. Function Test

TOOL/EQUIPMENT

SD card*2, TV, AC adapter, lens-wiping paper

USB cable, flower, accessory, computer

OPERATION DESCRIPTION

ITEM	OPERATON DESCRIPTION
Part I	
1	**Take out the camera, open the battery cover and insert SD card. Camera cannot be powered on if insert the battery reversely. Insert battery rightly and power on. Check if can power on normally. Confirm if the FW version is correct during power on process. Enter capture mode and confirm if the battery icon is consistent with the real battery situation and if the memory icon on LCD is SD icon.**
2	**Knock the camera on the desk slightly for three times (5cm distance between camera and the surface of desk, bottom down, do not scratch the cosmetic). Camera cannot come out any abnormity, for example, power breaks, SD card ejects, and etc.**
3	**Take a photo in Auto mode and press Playback button to confirm the image. No abnormity can come out in the process of photography, storage and play. Power off; remove the battery and close battery cover.**
4	**When all the above are ok, power off and put into the line.**
Part II	
A	**1. Insert the 3.0 V AC adapter, power on in the Auto mode. View towards beyond and vicinity in capture mode respectively, and check if the images on LCD are clear and display is biased. Check LCD noise facing to dark place, and if the spoiling points accord to the standard. Check the LCD has feeder and brightness is normal.**
	2. Revolve the dial for one circumference in the revolving mode, check if each mode on LCD's top left corner displays normally. Press Display button (OK button) twice to confirm if TFT-LCD operation is normal.
B	**1.Press W/T to stretch out to Tele, and then draw back to W segment, confirm if there is any abnormity of lens when stretch out and draw back. Take out the abnormal ones; take a photo to the flower with suppressed flash in Wide segment.**
	2. When view towards vicinity (about 1.0m) or beyond (over 2.5m) in Wide segment, press S1 to focus, and check if the focus is ok, which means focus frame displays green. Stretch out to T segment and repeat the focus action. That the focus frame displays red is NG. Take out and maintain.
	3. Press the cross button (Self-timer mode), TFT-LCD displays self-timer symbol and self-timer's time. Take a photo to the flower with 2s' forced flash.

C	**Make the spot test of 10 PCS from each section, trigger to take 30 pictures in forced flash mode and confirm if there is any abnormity, such as missing flash, hang on, power off automatically etc.**
D	**Shift to landscape mode and take a piece of photo towards beyond (more than 3m) in flash off mode. Then switch to night and red-eye reduction mode, take a photo facing to the dark place under desk, and the camera must have flash and the pre-flash and main flash shall have clear differences before and after.**
E	**Shifting to record mode, record symbol is displayed. Press Shutter button to record more than 5s, using the sound box to catch record.**
F	**Connect TV and press playback button to enter into playback mode, view the pictures. There should not be NG pictures and the pictures should not have color aberration. Select the Movie document, press SET button to enter into movie play mode; The voice should not be abnormal or too low. Press Wide button and LCD displays nine-thumbnail image; press direction button can select picture up, down, left and right. All the above operation should e normal. Take out the abnormal ones to maintain and pull out the TV wire.**
G	**Draw out 10 PCS from each section, shift to SETUP mode, select LCD BRIGHTNESS and press OK button to enter into LCD brightness adjustment menu. Press left-right button to adjust LCD brightness to confirm if the LCD brightness changes regularly.**
H	**Select format menu to format the internal memory of camera. After this, set to default to the camera. After all the above are ok, power off and confirm if the lens can retract. Pull out the power wire; put the OK products into production line.**

4. Troubleshooting

Item	NG point	NG Analyzing solution
Charge Triggering System	**Charging failure**	**1>. Check if connectors TP45-TP50 of J401 are cold solder, no solder, insufficient solder, short-circuit, wrong solder, and etc. if there is any, remove the abnormity;** **2>. If (1) is normal, check if U401 and related components and voltage are normal, remove the abnormity;** **3>. If (1), (2) are normal, check if Q402 and T401 are normal, remove the abnormity;** **4>. If (1), (2), (3), check if D401, R401~R406 and big capacitor are normal, remove the abnormity;** **5>. If above are normal, check if controlled pins of MCU board are normal, remove the abnormity.**
	Triggering failure/ flash missing/ flash only once	**1>. Check if tube is offset or installed reversely, wires of tube are cold solder or insufficient solder, remove the abnormity;** **2>. If (1) is normal, check if copper foil of reflector contact well;** **3>. If (1), (2) are normal, check if big capacitor is insufficient solder and voltage is normal. If voltage is too low, check if R401~R406 are normal, remove the abnormity;** **4>. If (1), (2), (3) are normal, check if Q403 is triggered, cold solder or insufficient solder, C505 is cold solder or broken, remove the abnormity;** **5>. If (1), (2), (3), (4) are normal, check if +5V voltage is normal, remove the abnormity;** **6>. If above items are normal, check controlled pins on MCU board are normal, removes the abnormity.**
Lens system	**Lens flexing issue**	**1>. Check if connecting board of lens is NG, cold solder or insufficient solder, remove the abnormity;** **2>. If (1) is normal, check if R84, R87, R89, R90 on MCU board are cold solder or insufficient solder, remove the abnormity;** **3>. If (1), (2) are normal, check if CN1 and CN2 contact well, remove the abnormity;** **4>. If above items are normal, check if U8 and related circuit are cold solder or insufficient solder, remove the abnormity.**

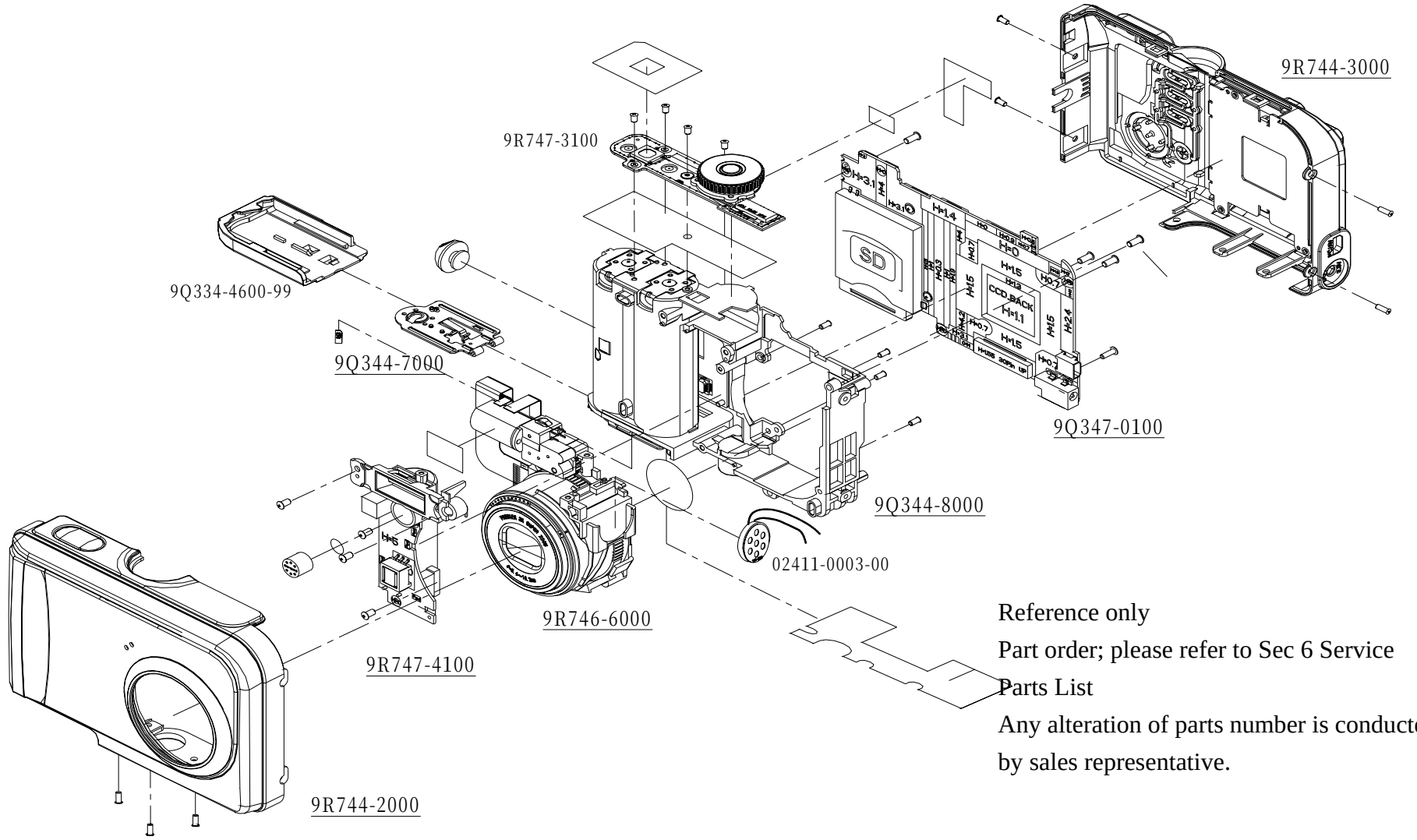
	Aperture shift NG	**1>. Check if lens connecting board contact NG, cold solder or insufficient solder, remove the abnormity;** **2>. If (1) is normal, check if R80, R81, R82, R83, R85, R86 are cold solder or insufficient solder, remove the abnormity;** **3>. If (1), (2) are normal, check if CN1 and CN2 contact well, remove the abnormity;** **4>. If above items are normal, check if U8 and related circuit are cold solder or insufficient solder, remove the abnormity.**
	Lens focus failure	**Check if lens and around components are normal; remove the abnormity.**
	Lens resolution issue	**1>. Check if CCD is assy well, remove the abnormity;** **2>. Check if lens is NG. Change lens**
	Lens noise	**1>. Check if lens is NG. Change lens** **2>. Check if the components around lens are cold solder or insufficient solder, remove the abnormity.**
Power and system	**Power on failure (without current)**	**1>. Check if the connection between MCU panel and soft connecting panel of Shutter is NG, remove the abnormity;** **2>. Check if the fuse F1 on power board is broken, remove the abnormity;** **3>. Check if crystal Y3 is short-circuit, cold solder or no solder, remove the abnormity;** **4>. Check if the POWCTRL related circuit is cold solder, insufficient solder, short-circuit, component broken, and etc. Remove the abnormity;** **5>. Check if the related tube pins of U11 are cold soldered, insufficient solder, no solder, short circuit, and etc. Remove the abnormity.**
	Power on fail (with current)	**1>. Check if the connection between MCU panel and soft connecting panel of Shutter is biased or NG, remove the abnormity;** **2>. Reuse the USB update FW, confirm if the camera can power on;** **3>. Check if U10 is cold solder, no solder or insufficient solder, remove the abnormity;** **4>. Record U10 again to confirm if the camera can power on;** **5>. Check if S3.3V is normal, remove the abnormity;** **6>. Check if inductance and audion on power board are cold solder or short circuit; remove the abnormity.**

	Power on without sound/ with abnormal sound	**1>. Check if two poles of buzzer are cold solder or broken, remove the abnormity;** **2>. Check if buzzer is ok, remove the abnormity;** **3>. Check if R15, Q5, R8, R113 are cold solder, insufficient solder or NG, remove the abnormity.**
	The shift between AC power and battery is NG.	**1>. Check if power connector is cold solder, insufficient solder, short circuit or NG, remove the abnormity;** **2>. Check if D15 is broken, short circuit or insufficient solder; remove the abnormity.**
Display and image system	**TFT-LCD image unstable**	**Check if golden finger of CCD FPC and connector contact well.**
	TFT-LCD white image	**1>. Check if LCD interface is inserted to the bottom or the interface is cold solder, root of LCD FPC is broken, remove the abnormity;** **2>. Check if each group of power +5VD, +8.5VL, 3.3VD, -8.0VL of LCD are normal.**
	TFT-LCD display menu without image	**1>. Check if switch of shutter is normal, remove the abnormity;** **2>. Check if CCD flex board assy well, remove the abnormity;** **3>. Check if output of CCD related components is OK, remove the abnormity;** **4>. Check if each group of voltage of CCD is OK; remove the abnormity.**
	TFT-LCD color aberration/ color difference	**1>. Check if CCD flex board is OK or assy OK, remove the abnormity;** **2>. Check if soldering of CCD is short-circuit, insufficient solder or cold solder, remove the abnormity;** **3>. Check if capacitor C503, Q501 on CCD flex board are OK, remove the abnormity;** **4>. Check if U1 is cold solder, insufficient solder or broken, remove the abnormity.**
	TFT-LCD no image but TV displays normally	**1>. Check if TV connector is OK, remove the abnormity;** **2>. Check if VIDEO_DET is OK; remove the abnormity.**
	TV no image but LCD displays normally	**1>. Check if AV connector and related components are OK, remove the abnormity;** **2>. Check if VIDEO_DET is OK; remove the abnormity.**

Others	**USB connecting failure or can not search the disk**	**1>. Check if USB connector is OK, remove the abnormity;** **2>. Check if USB_DTC related circuit is OK, remove the abnormity;** **3>. Confirm if ASIC and related circuits are OK; remove the abnormity.**
	TV play/ no sound/ noise/ voice too low/ too high	**1>. Check if AV connector and R315, C181 are OK, remove the abnormity;** **2>. Check if wires of microphone are solder well, remove the abnormity;** **3>. Check if microphone is OK; remove the abnormity.**

This document cannot be modified and implemented without prior approval from Premier.

5. Explode diagram



Reference only

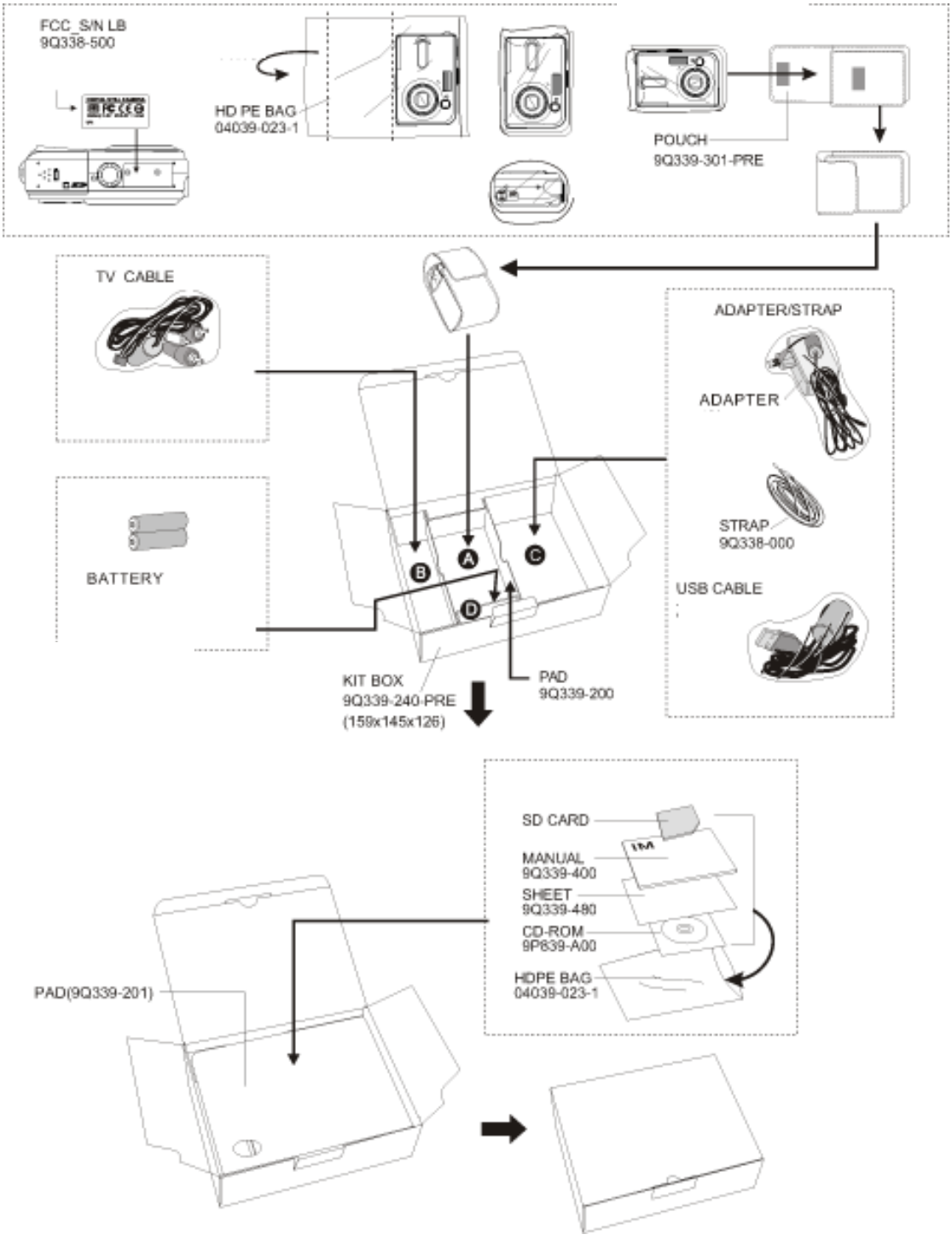
Part order; please refer to Sec 6 Service Parts List

Any alteration of parts number is conducted by sales representative.

6. **Service Parts List**

Item	Parts Name	Pcs / set	Premier P/N	Remark
1	MCU_DIP_PCB_ASY	1	9Q347-0100	
2	STROBE_DIP_PCB_ASY	1	9R747-4100	
3	SWITCH_DIP_PCB_ASY	1	9R747-3100	
4	LENS ASSY	1	9R746-6000	
5	BATTERY-HOLDER-SUB-ASM	1	9Q344-8000	
6	BATTERY-COVER	1	9Q334-4600-99	
7	FRONT-GRIP-SUB-ASM	1	9R744-2000	
8	BACK-GRIP-SUB-ASM	1	9R744-3000	
9	BATTERY-COVER-SUB-ASM	1	9Q344-7000	
10	BUZZER	1	02411-0003-00	

Packing Diagram



Packing Part List

No	Part name	Part number
1	HDPE BAG	04039-023-1
2	LB ASSURANCE TAPE	04238-765
3	OUT_CTN	9E539-602
4	PAD, VIVITAR	9E539-694
5	PAD, VIVITAR	9E539-695
6	CD ROM	9P839-A00
7	STRAP	9Q338-000
8	KIT PAD	9Q339-200
9	PAD	9Q339-201
10	FCC LB	9R738-5000-00
11	KIT BOX	9R739-2400-00
12	SHEET	9R739-4800-00
13	IM	9R739-4000-01
14	POUCH	9R739-3000-00

Firmware Update Procedure

To update this camera firmware, you will need to have

1. The new firmware file from Premier.
2. One SD card.
3. One card reader.

Please follow the steps below to perform the update process:

1. Change the update file name to “DC4345.bin”;
2. Insert a SD card with F/W to the card reader;
3. Plug in the AC adapter into the camera;
4. Press "S1" & "Playback" button at the same time and press “Power” button, then loosen “Power” button, LCD will display the image and camera enters update process automatically and LED blinks;
5. When LED stops blinking, it means update ok;
6. Pull out AC adaptor, remove SD card.

Note: Don’t remove the power source during firmware update procedures.

Premier will not be responsible to any damage caused by end-users while updating firmware by themselves. Always come to Premier’s service center for processing the updating.